

CLAIMS

What is claimed is:

1. A method for preventing unauthorized transfer of data between a portable computer system and systems of data storage and communication including an other computer, said method comprising the steps of:
- a) receiving identification authentication information for said portable computer system, wherein said authentication information comprises a unique identity for said portable computer;
 - b) comparing said identification authentication information with a list of authorized portable computer system identities;
 - c) determining whether said portable computer system identity is authorized based on said identification authentication information and said unique identity;
 - d) enabling communication between said portable computer system and said other computer provided said identity is authorized and disabling said communication if said identity is not authorized; and
 - e.) enabling decryption of encrypted data from said portable computer system provided said identity is authorized and disabling decryption if said identity is not authorized.
2. The method as recited in Claim 1 wherein step a) comprises the step of transferring identification authentication information between a portable computer system portable device and a communication interface device.

3. The method as recited in Claim 2 wherein said information is transferred from said portable device to said interface device to uniquely identify said portable device to said interface device.

5 4. The method as recited in Claim 2 wherein said information is transferred from said interface device to said portable device to uniquely identify said interface device to said portable device.

10 5. The method as recited in Claim 2 wherein said portable device is a palmtop computer and said interface device is a palmtop computer system cradle.

6. The method as recited in Claim 1 wherein said step b) comprises the steps of:

15 recognizing said identification authentication information as an indication of unique identity of the source sending said information; and indexing said unique identity to a list of programmed identities.

20 7. The method as recited in Claim 1 wherein said step c) comprises the steps of:

reacting to positive indexing match as an authenticated authorized identity and to negative indexing match as an unauthorized identity; and

authorizing communications enablement in response to an authenticated authorized identity, and prohibiting communications in response to an unauthorized identity.

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8. The method as recited in Claim 1 wherein said step d) comprises the steps of allowing said portable computer to synchronize with said other computer upon authorization of communication and preventing synchronization upon prohibition of communication.

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9. The method as recited in Claim 1 wherein step e) comprises the steps of disclosing a specific key value with which said data is encrypted upon authorization of communication and not disclosing said specific key value upon prohibition of communication.

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10. A system for preventing unauthorized transfer of data between a portable computer system and a host system, comprising:

- a) a portable computer device capable of synchronizing with said host;
- b) an interface device compatible to receive said portable computer device and coupled with said host system and capable of facilitating communication between said portable computer device and said host system;
- c) an identification authenticating component incorporated into one of said devices and providing a unique identification signal corresponding to the unique identity thereof and
- d.) an identification authorizing component capable of determining if said unique identity is authorized for synchronization and for correspondingly enabling and disabling synchronization between said portable computer and said host system.

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11. A system as in Claim 10 wherein said portable computer device is a palmtop computer.

12. A system as in Claim 10 wherein said interface device is a palmtop computer cradle.

13. A system as in Claim 10 wherein said synchronous communication is further encrypted with a specific key value from said identification authenticating tagging component such that unauthorized applications external to said portable computer system are locked out from deciphering data therefrom.

14. A system as in Claim 10 wherein said identification authenticating tagging component is a magnetic key and said identification authentication reading component is a magnetic key reader.

15. A system as in Claim 10 wherein said identification authenticating tagging component is a smart card and said identification authentication reading component is a smart card reader.

16. A system as in Claim 10 wherein said identification authorizing component is an application specific integrated circuit.

17. A system as in Claim 10 wherein said identification authorizing component is a software program.

18. A system as in Claim 10 wherein said identification authenticating tagging component is in direct electrical connection with said identification authentication reading component via contacts.

19. A system as in Claim 10 wherein said identification authenticating tagging component is in contact free communication with said identification authentication reading component via an infrared communication mechanism.

5 20. A system as in Claim 9 wherein said identification authenticating tagging component is in contact free communication with said identification authentication reading component via a transmitter/receiver modality and antenna array.

10 21. A system for preventing unauthorized transfer of data between a portable computer system and a system of data storage and communication, comprising:

a) a portable computer device capable of synchronizing with said system of data storage and communication;

15 b) an interface device compatible to receive said portable computer device and coupled with said system of data storage and communication and capable of facilitating communication between said portable computer device and said system of data storage and communication;

20 c) an identification authenticating tagging and data encryption keying component incorporated into one of said devices and providing a unique identification signal and an encryption key cipher value corresponding to the unique identity thereof;

d.) an identification authentication reading component capable of sensing and reading said unique identification signal incorporated into the other of said devices not incorporating said tagging component;

25 e.) an identification authorizing component receiving input from said reading component and incorporated into the same one of said devices as said

reading component, capable of determining if said unique identity is authorized for synchronization and of correspondingly enabling and disabling synchronization between said portable computer and said system of data storage and communication; and

- 5 f.) an identification authorizing component further capable of enabling deciphering of encrypted communication from said portable computer device if said unique identity is authorized and disabling decryption if said unique identity is unauthorized.

- 10 22. A system as in Claim 20 wherein said identification authorizing component incorporates software for determining if said unique identity is authorized for synchronization, for correspondingly enabling and disabling synchronization, and deciphering encrypted data from said portable computer device.

- 15 23. A communication system comprising:
a host computer system comprising a communication port;
a portable electronic device comprising a communication port and an identity reference; and

- 20 a communication module for coupling between said communication ports of said portable electronic device and said host computer system, said communication interface module comprising:

an authentication device for authenticating said identity reference;
and

- 25 a communication interface circuit coupled to said authentication device and for allowing communication between said portable electronic device and said host computer system provided said authentication

device indicates a proper authentication of said identity reference and, otherwise, for disallowing communication between said portable electronic device and said host computer system.

5 24. A communication system as described in Claim 23 wherein said communication interface circuit comprises a decryption circuit.

 25. A communication system as described in Claim 23 wherein said communication module contains a slot for receiving said communication port of
10 said electronic device.

 26. A communication system as described in Claim 23 wherein said identity reference is stored on a removable smart card.
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